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10/718,863	11/21/2003	Kevin M. Pintar	149-0170US	1363

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EXAMINER
PHAM, KHANH B

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>11 January 2010</u>.
2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-26 and 30</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-26 and 30</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.   **Claims 1-26, 30** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Wang (US 7,305,422 B1), hereinafter "**Wang**", and in view of Hayashi et al. (US

5,881,378 A), hereinafter "**Hayashi**"

        As per claim 1, Wang teaches a database unload method comprising:

- "receiving a request to extract data from a single database table of a database" at

    Col. 6 lines 1-7;

- "the single database table having a current version associated with a current

    schema of the single database table" at Col. 5 lines 37-47;

- "and having a prior version associated with a prior schema of the single database

    table" at Col. 6 lines 27-47;

- "the current version being different from the prior version", at Col. 6 lines 27-47;

- "the requested directed to the prior version" at Col. 6 lines 1-7;

- "extracting data from the single database table based on the prior schema

    associated with the prior version" at Col. 6 lines 1-47.

Wang does not explicitly teach that "the current schema being different from the prior schema" as claimed. However, Hayashi teaches a method of accessing a database table associated with an old version database definition (i.e. "prior schema") and a new version of database definition (i.e. "current schema") at Col. 19 lines 5-50, wherein "the current schema being different from the prior schema" at 3Col. 19 lines 35-40 (i.e. "ALTER TABLE T" "ADD COLUMN C"). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Hayashi with Wang's teachings so that users are allowed to access to different version of the schemas and verify the consistency of the data in the database table.

As per claim 2, Wang and Hayashi teach the method of claim 1 discussed above. Hayashi also teaches: wherein "the act of receiving a request further comprises obtaining schema definition information associated with the single database table" at Col. 19 lines 5-20.

As per claim 3, Wang and Hayashi teach the method of claim 2 discussed above. Hayashi also teaches: wherein "the act of obtaining schema definition information comprises obtaining schema definition information for the prior version" at col. 19 lines 5-20.

As per claim 4, Wang and Hayashi teach the method of claim 3 discussed above. Hayashi also teaches: wherein "the act of obtaining schema definition

information further comprises obtaining schema definition information for version

associated with the single database table in addition to the prior version" at Col. 19 lines

5-20.

As per claim 5, Wang and Hayashi teach the method of claim 2 discussed

above. Hayashi also teaches: wherein "the act of obtaining schema definition

information comprises receiving said schema definition information from a user" at Col.

19 lines 32-55.

As per claim 6, Wang and Hayashi teach the method of claim 2 discussed

above. Hayashi teaches: wherein "the act of obtaining schema definition information

comprises receiving said schema definition from a database change management

application" at Col. 19 lines 32-55.

As per claim 7, Wang and Hayashi teach the method of claim 1 discussed

above. Hayashi also teaches: "the act of obtaining schema definition information

comprise receiving said schema definition information directly from a database

management system" at Col. 10 lines 28-58.

As per claim 8, Wang and Hayashi teach the method of claim 1 discussed

above. Wang also teaches: "the act of extracting data comprise unloading data stored in

the single database table to a result set data structure" at Col. 6 lines 1-40.

As per claim 9, Wang and Hayashi teach the method of claim 8 discussed above. , Wang also teaches: wherein "the result set data structure comprises a computer file" at Col. 6 lines 1-40.

As per claim 10, Wang and Hayashi teach the method of claim 1 discussed above. Wang also teaches: wherein "the act of extracting data comprises generating a file that encodes therein a definition of the schema associated with the prior version" at Col. 6 lines 1-40.

As per claim 11, Wang and Hayashi teach the method of claim 1 discussed above. Wang also teaches: wherein "the act of extracting data comprises: unloading a datum from the single database table, said datum having a first format, and transforming the unload datum to a second format" at Col. 6 lines 25-65.

As per claim 12, Wang and Hayashi teach the method of claim 1 discussed above. Wang also teaches: wherein the act of extracting data comprises: identifying a row in the single database table; determining a version associated with the identified row; and extracting data from the identified row in accordance with the determined version" at Col. 6 lines 1-65.

As per claim 13, Wang and Hayashi teach the method of claim 12, wherein "the acts of identifying, determining, and extracting are repeated for each row in the single database table" at Col. 6 lines 1-65.

As per claim 14, Wang teaches a program storage device, readable by a programmable control device, comprising instructions stored on the program storage device for causing the programmable control device to:

- "receive a request to extract data from a single database table of a database" at Col. 6 lines 1-7;

- "the database table having a current version associated with a current schema of the database table" at Col. 5 lines 37-47;

- "and having a prior version associated with a prior schema of the single database table" at Col. 6 liens 27-47;

- "the current version being different from the prior version" at Col. 6 lines 27-47;

- "the request directed the prior version" at Col. 6 lines 1-7; and

- "extract data from the single database table based on the prior schema associated with the prior version" at Col. 6 lines 1-7.

Wang does not explicitly teach that "the current schema being different from the prior schema" as claimed. However, Hayashi teaches a method of accessing a database table associated with an old version database definition (i.e. "prior schema") and a new version of database definition (i.e. "current schema") at Col. 19 lines 5-50, wherein "the current schema being different from the prior schema" at 3Col. 19 lines 35-40 (i.e.

"ALTER TABLE T" "ADD COLUMN C"). Thus, it would have been obvious to one of

ordinary skill in the art at the time of the invention was made to combine Hayashi with

Wang's teachings so that users are allowed to access to different version of the

schemas and verify the consistency of the data in the database table.

As per claim 15, Wang and Hayashi teach the program storage device method

of claim 14. Hayashi also teaches: wherein "the instructions to receive a request further

comprise instructions to obtain schema definition information associated with the single

database table" at Col. 19 lines 5-20.

As per claim 16, Wang and Hayashi teach the program storage device of claim

15. Hayashi also teaches: wherein the instructions to obtain schema definition

information comprise instructions to obtain schema definition information for the prior

version" at Col. 19 lines 5-20.

As per claim 17, Wang and Hayashi teach the program storage device of claim

16. Hayashi also teaches: "wherein the instructions to obtain schema definition

information further comprise instructions to obtain schema definition information for

versions associated with the database table in addition to the prior version" at Col. 19

lines 5-20.

As per claim 18, Wang and Hayashi teach the program storage device of claim 15. Hayashi also teaches: "wherein the instructions to obtain schema definition information comprise instructions to receive said schema definition information from a user" at Col. 19 lines 32-55.

As per claim 19, Wang and Hayashi teach the program storage device of claim 15. Hayashi also teaches "wherein the instructions to obtain schema definition information comprise instructions to receive said schema definition from a database change management application" at Col. 19 lines 32-55.

As per claim 20, Wang and Hayashi teach the program storage device of claim 15. Hayashi also teaches "wherein instructions to obtain schema definition information comprise instructions to receive said schema definition information directly from a database management system" at Col. 10 lines 28-58.

As per claim 21, Wang and Hayashi teach the program storage device of claim 14. Wang also teaches: "wherein the instructions to extract data comprise instructions to unload data stored in the single database table to a result set data structure" at Col. 6 lines 1-40.

As per claim 22, Wang and Hayashi teach the program storage device of claim 21. Wang also teaches: "wherein the instructions to unload data to a result set data structure comprise instructions to unload data to a computer file" at Col. 6 lines 1-40.

As per claim 23, Wang and Hayashi teach the program storage device of claim 14. Wang also teaches: "wherein the instructions to extract data comprise instructions to generate a file that encodes therein a definition of the schema associated with the prior version" at Col. 6 lines 1-40.

As per claim 24, Wang and Hayashi teaches the program storage device of claim 14. Wang also teaches: "wherein the instructions to extract data comprise instructions to: unload a datum from the single database table, said datum having a first format; and transform the unload datum to a second format" at Col. 6 lines 25-65.

As per claim 25, Wang and Hayashi teach the program storage device of claim 14. Wang also teaches: "wherein the instructions to extract data comprise instructions to: identify a row in the database table; determine a version associated with the identified row; and extract data from the identified row in accordance with the determined version" at Col. 6 lines 1-65.

     As per claim 26, Wang and Hayashi teach the program storage device of claim

25. Wang also teaches: "wherein the instructions to identify, determine and extract are

repeated for each row in the database table" at Col. 6 lines 1-65.

     As per claim 30, Wang teaches a computer system, comprising:

- "a central processing unit" at Fig. 5;

- "first storage operatively coupled to the central processing unit, the first storage

  having stored therein at least a portion of a single relational database

  table of a database" at Figs. 1, 5; and

- "second storage operatively coupled to the central processing unit and the first

  storage, the second storage having stored therein at least a portion of a

  database management system" at Figs. 1, 5,

- "the database management system adapted to receive a request to extract data

  from the single relational database table of the database" at Col. 6 lines 1-7,

- "the relational database table having a current version associated with a current

  schema of the single relational database table" at Col. 5 lines 37-47;

- "and having a prior version associated with a prior schema of the single relational

  database table" at Col. 6 lines 27-47;

- "the current version being different from the prior version" at Col. 6 lines 27-47;

- "the request directed to the prior version" at Col. 6 lines 1-7, and

- "extract data from the single relational database table based on the prior schema

  associated with the prior version" at Col. 6 lines 1-47.

Wang does not explicitly teach that "the current schema being different from the prior schema" as claimed. However, Hayashi teaches a method of accessing a database table associated with an old version database definition (i.e. "prior schema") and a new version of database definition (i.e. "current schema") at Col. 19 lines 5-50, wherein "the current schema being different from the prior schema" at 3Col. 19 lines 35-40 (i.e. "ALTER TABLE T" "ADD COLUMN C"). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Hayashi with Wang's teachings so that users are allowed to access to different version of the schemas and verify the consistency of the data in the database table.

Response to Arguments

3.   Applicant's arguments filed 1/11/2010 have been fully considered but they are not persuasive. The examiner respectfully traverses Applicant's arguments.

4.   Applicant argued that Wang "does not even extract data from a single database table. Rather, Wang obtains prior "values" from an undo block and not from a subject table. On the contrary, Wang clearly teaches at Col. 6 a query statement to extract previous version of data item in a specified column of a single table T :

TABLE 1

EXAMPLE OF A SELECT STATEMENT USED TO RETRIEVE
PREVIOUS VERSIONS OF THE DATA ITEMS IN A
SPECIFIED COLUMN

Select prev(c1, x) from T where c2 = 1

Applicant further argued that "Wang is utterly silent about different schemas of a single database table", the Examiner agreed. However, schema of a database table is usually changed over time, for example, adding or deleting a column of a table is well known in the art. Hayashi is relied on by the examiner to show this fact. Hayashi teaches a method of accessing a database table associated with an old version database definition (i.e. "prior schema") and a new version of database definition (i.e. "current schema") at Col. 19 lines 5-50, wherein "the current schema being different from the prior schema" at 3Col. 19 lines 35-40 (i.e. "ALTER TABLE T" "ADD COLUMN C"). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Hayashi with Wang's teachings so that users are allowed to access to different version of the schemas and verify the consistency of the data in the database table.

In light of the foregoing arguments, the 35 U.S.C 103 rejection is hereby sustained.

Conclusion

5.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Khanh B. Pham whose telephone number is (571) 272-

4116. The examiner can normally be reached on Monday through Friday 7:30am to

4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Hosain Alam can be reached on (571) 272-3978. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Khanh B. Pham/
Primary Examiner
Art Unit 2166

March 19, 2010